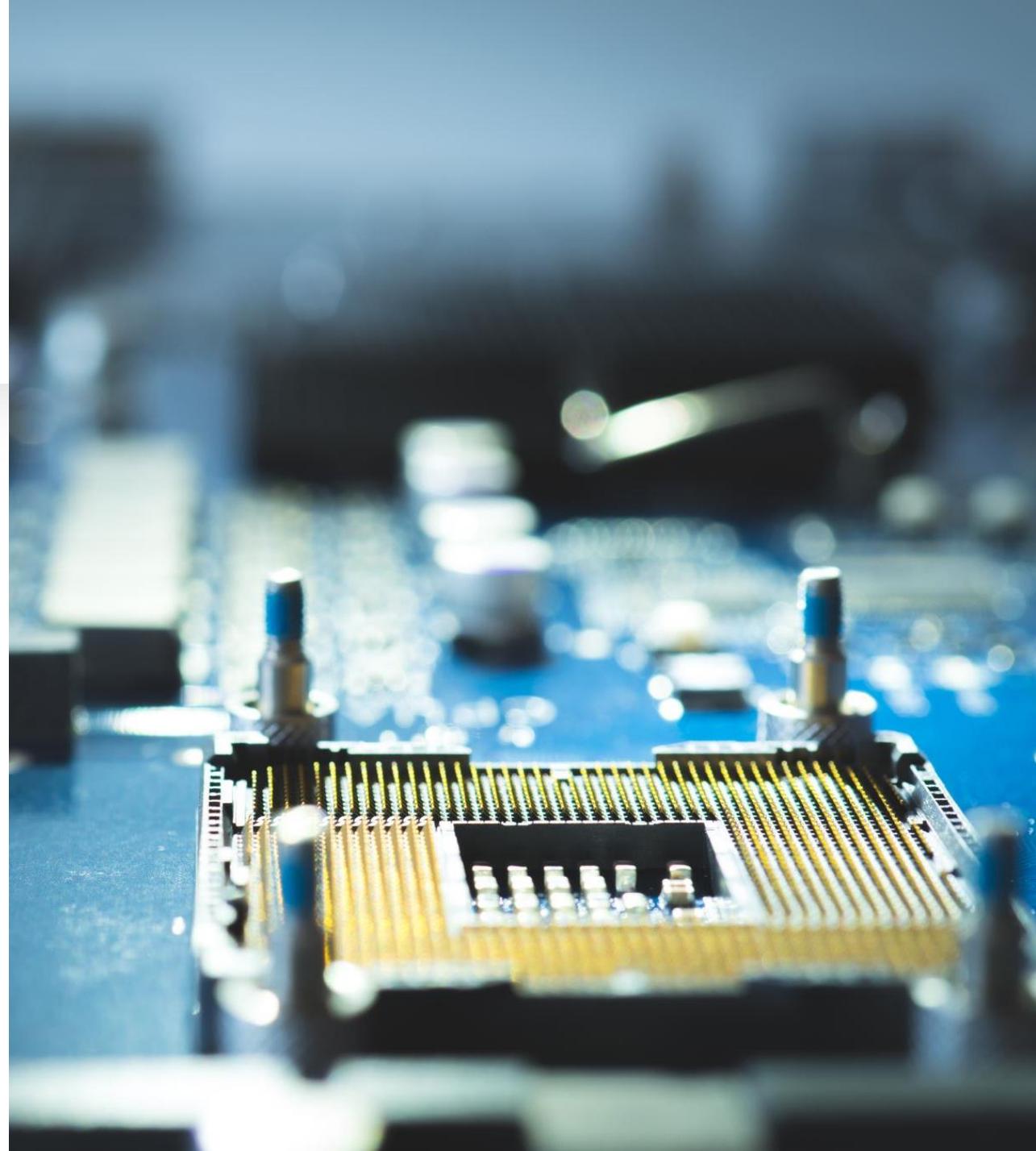Basic Computing

# Mankato Computer Technology University

# What is a computer?

- A computer is an electronic device that processes data according to a set of instructions.
- Components
  - Hardware
  - Software

# Basic Computer Hardware

- Input Devices: Keyboard, Mouse, Scanner

- Output Devices: Monitor, Printer, Speakers

- Processing Unit: Central Processing Unit (CPU)

- Storage Devices: Hard Drive, SSD, USB
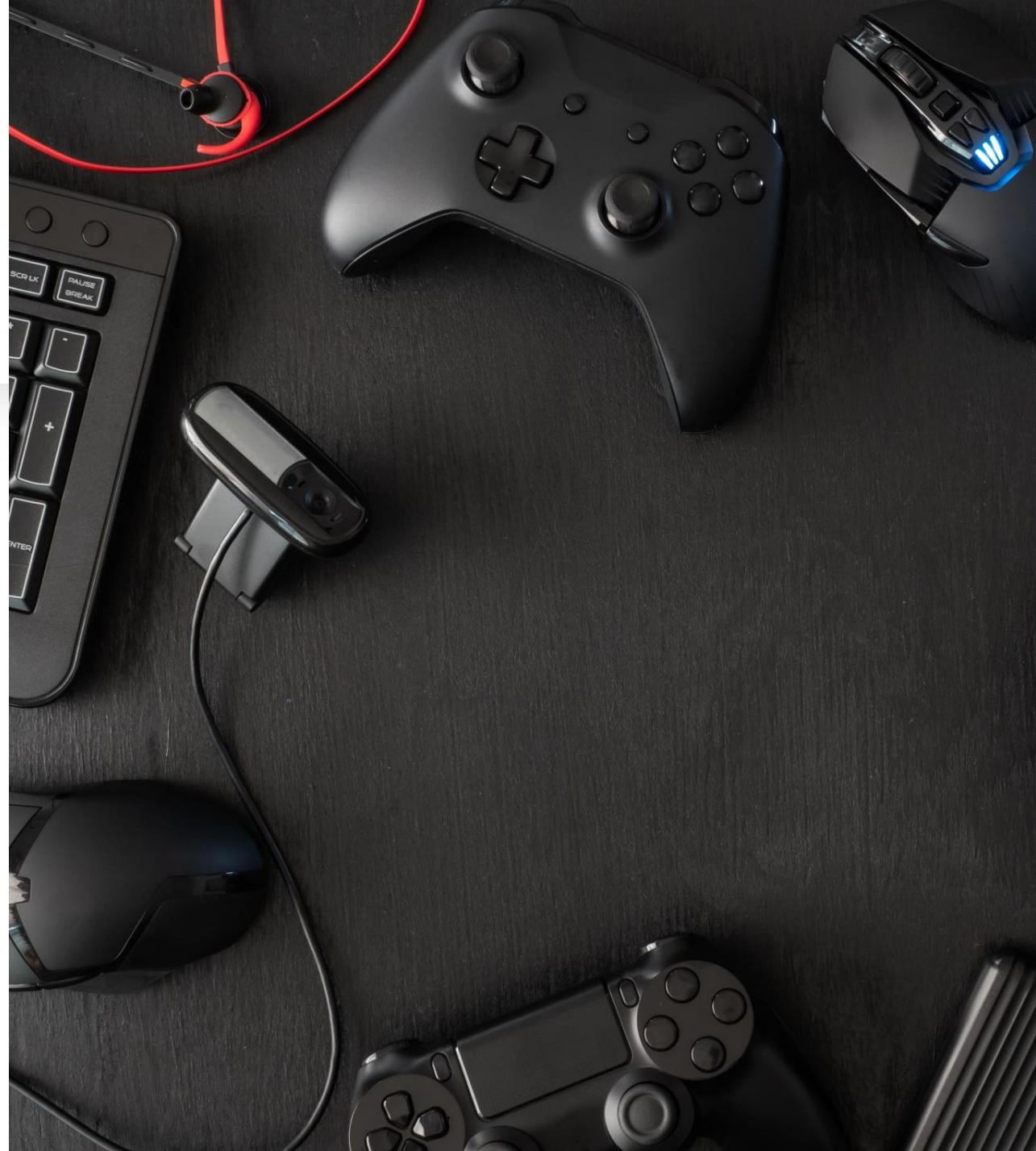
# Basic Computer Software

- System Software: Operating System (e.g., Windows, macOS, Linux)

- Application Software: Word Processors, Browsers, Games

- Utility Software: Antivirus, Disk Cleanup
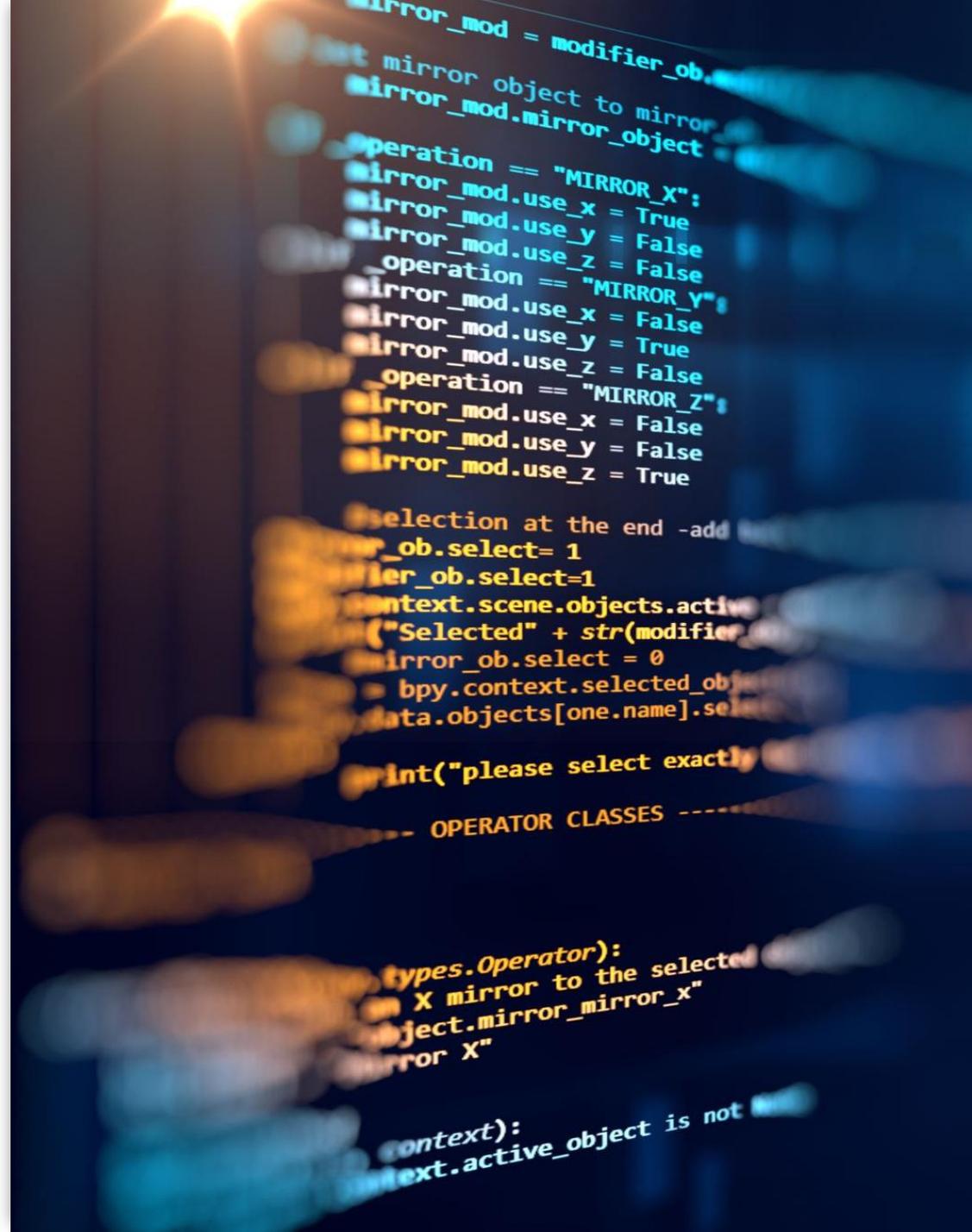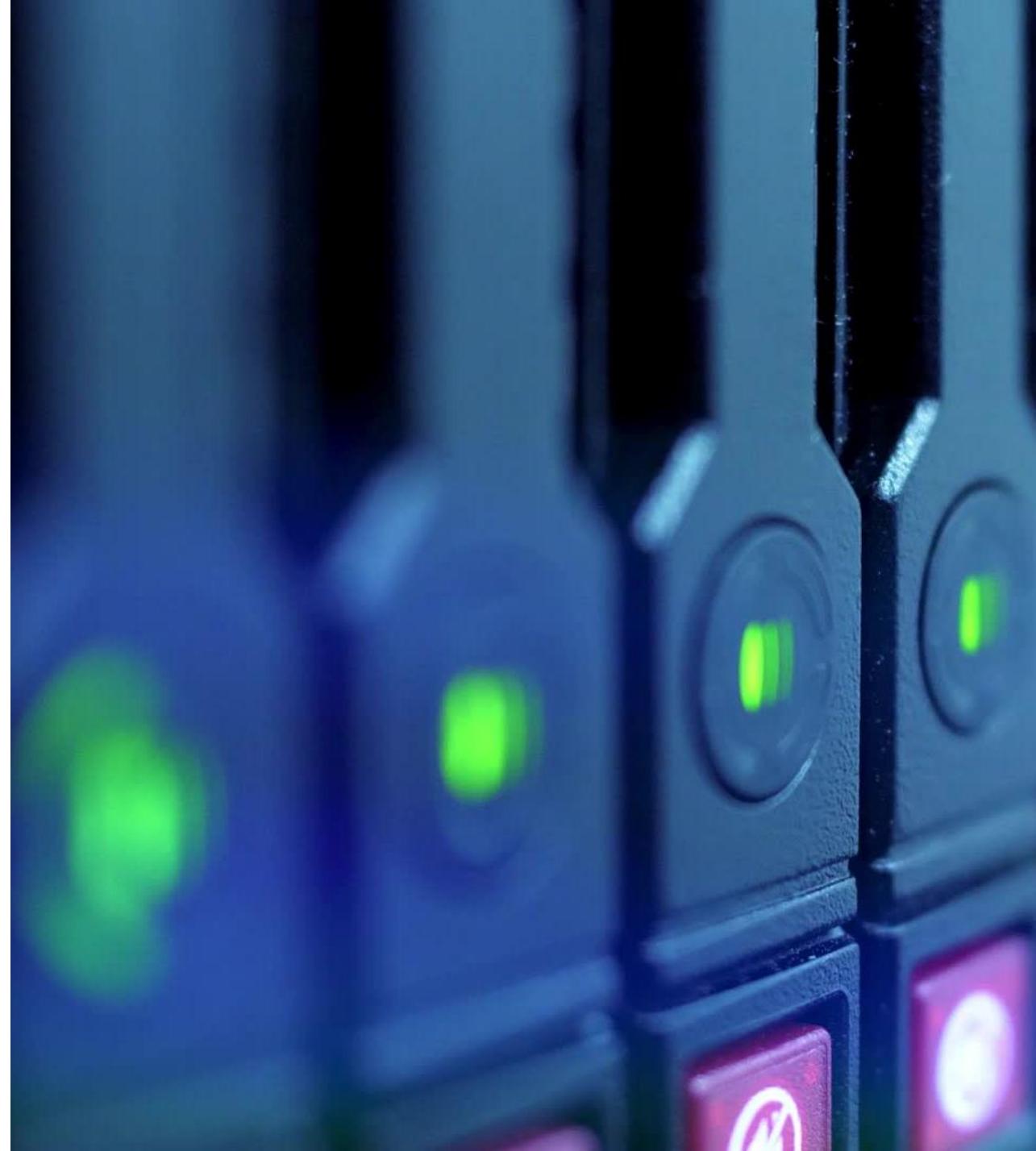
# How Computers Work

- Input: Data entered into the computer
- Processing: CPU processes data
- Output: Information displayed or printed
- Storage: Data saved for later use
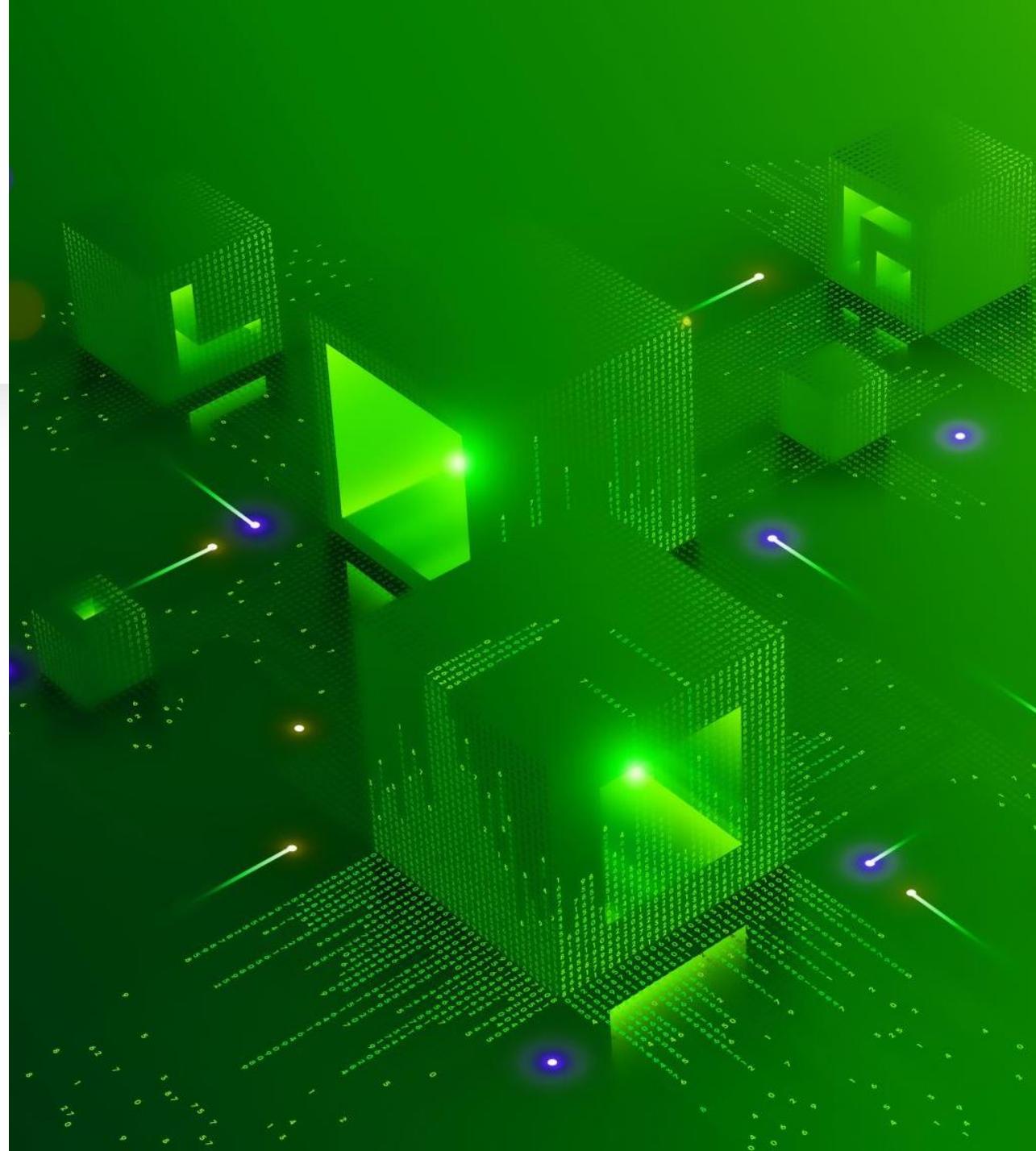
# Types of Computers

- **Personal Computers (PCs)**
- **Laptops**
- **Tablets**
- **Smartphones**
- **Servers**

# Introduction to Operating Systems

- **Definition**: Software that manages computer hardware and software resources
- **Examples**: Windows, macOS, Linux
- **Functions**:
    - Managing files and directories
    - Running applications
    - Handling input and output operations
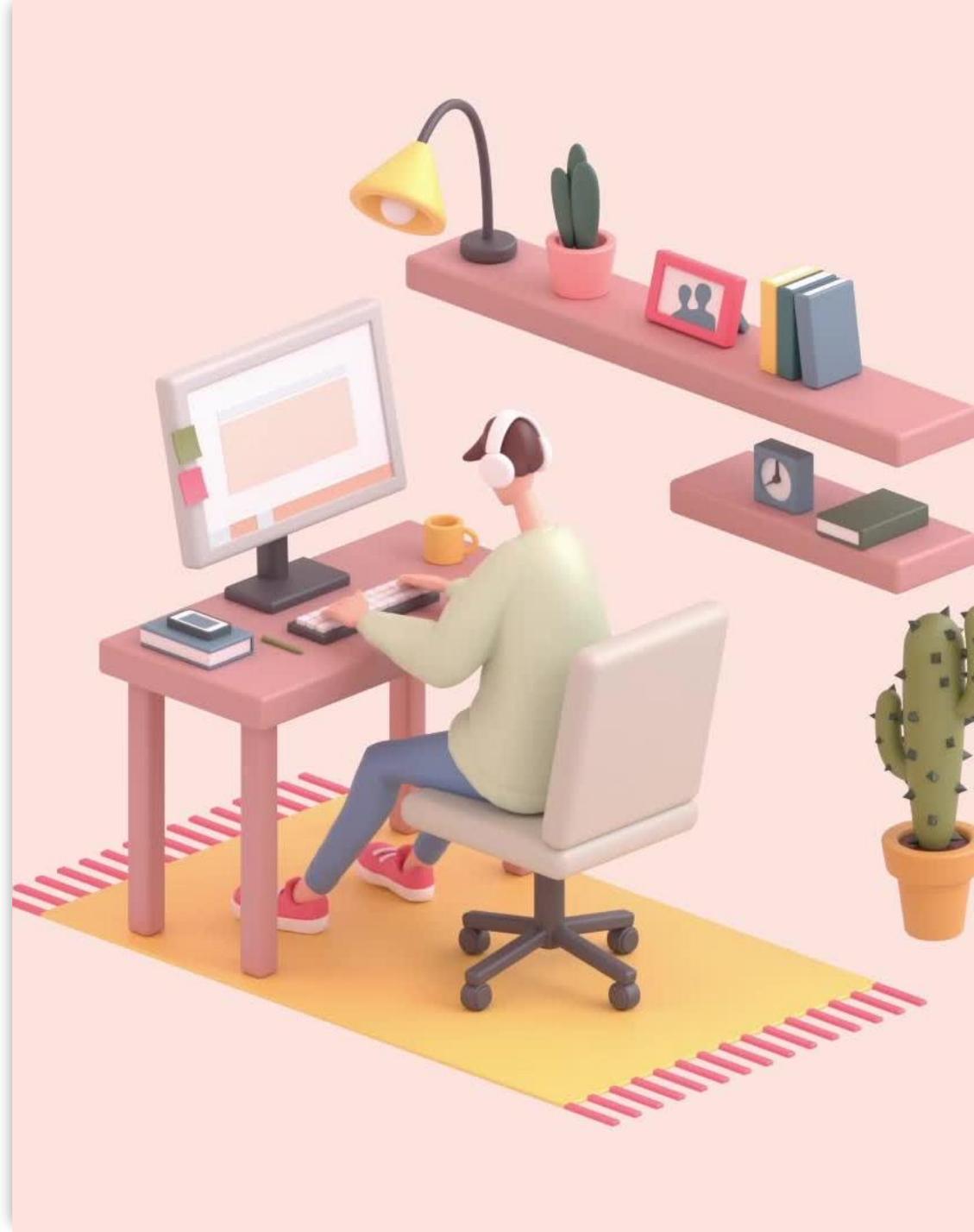
# Basic Computer Operations

- **Starting Up and Shutting Down**
- **Navigating the Desktop**
- **Opening and Closing Applications**
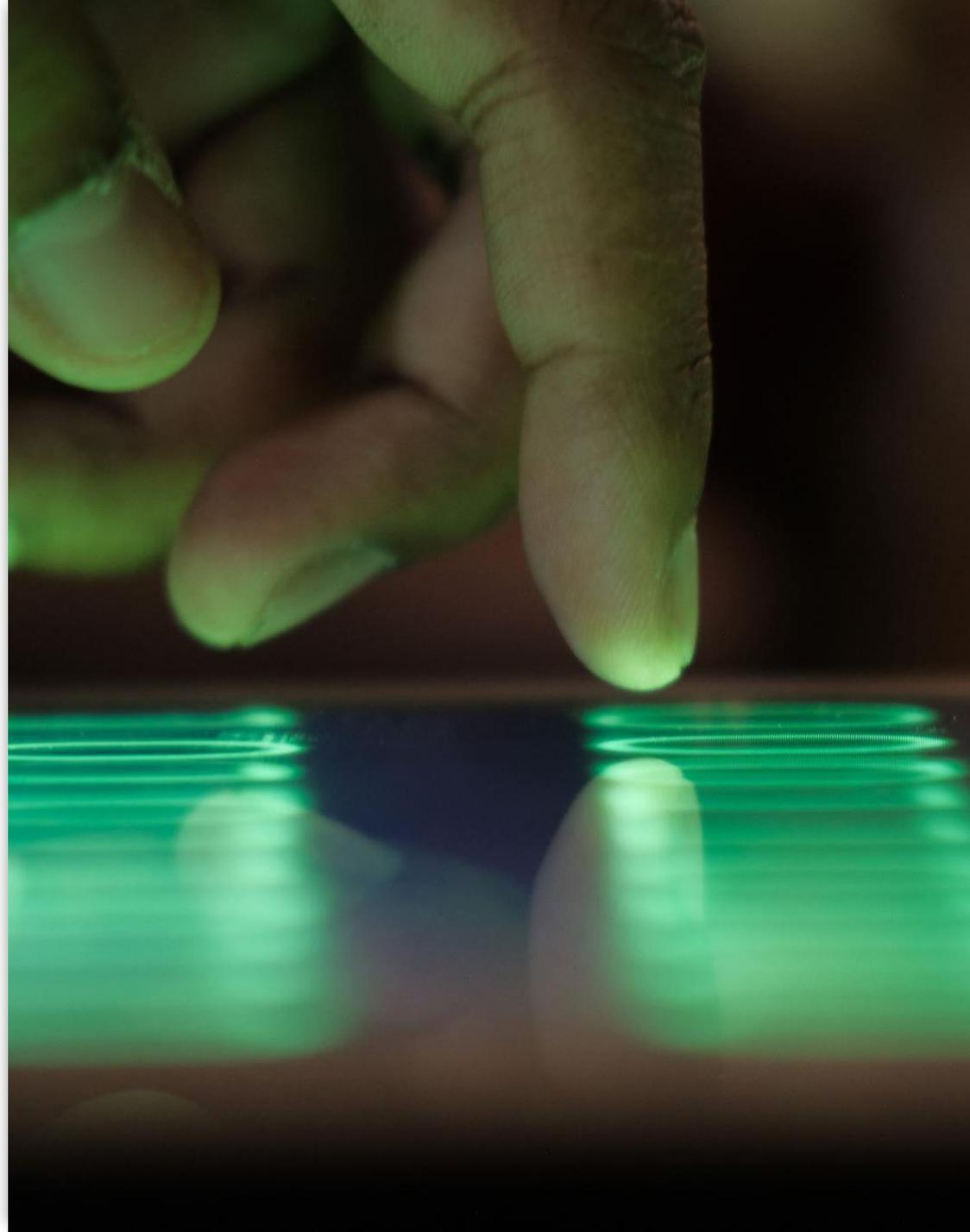- **Managing Files and Folders**

# Basic Computer Skills

- Keyboarding Skills. ...
- Using Web Browsers. ...
- Working with Microsoft Office. ...
- File Maintenance and Organization. ...
- Email Etiquette. ...
- Using the Internet for Research.

# Keyboarding Skills

- There are thousands of free websites like Typing Club and Dance Mat Typing designed specifically to improve keyboarding skills.

# Using Web Browsers

- Computer-literate students understand how to use [major browsers](#) like Chrome, Firefox, Edge, or Safari and can switch between them naturally.

- They can add websites to "Bookmarks" or "Favorites" and understand how to clear browser history, cache, and cookies to resolve performance issues.

# Working with Microsoft Office

- Microsoft Office is one of the world's most popular business solutions with and is widely used in both the academic and professional fields.

- Visit the Microsoft Office training page to find tutorials for these and other useful programs.

# Microsoft Word.

- Word is arguably the most popular word processing and document creator program available.

- Create, format, save, and edit documents in Word

- Add tables and graphics to documents

- Adjust margins and spacing

- Check word counts

- Create headers and footers

- Use track changes

# Excel.

- Students should be able to use this spreadsheet program to organize information, sort and filter data, and create charts and graphs.

# PowerPoint.

- Mastery of this slide program allows students to make effective presentations as part of reports and in their future workplaces.
- Students should be able to create basic presentations with text, pictures, and objects.

# File Maintenance and Organization

- Create and label folders

- File content in folders and know that each folder may hold individual files or additional folders with subfolders.

- Read file suffixes and interpret their importance (e.g., that a file ending in .docx will open in Microsoft Word, and .xls will open in Microsoft Excel )

- Use external drives, such as flash drives

- Transfer and share cloud files, such as via Dropbox, Microsoft's OneDrive, and Google Drive

- Visit the computer maintenance checklist to learn more about computers, organization, and help keep their device in excellent condition.

# Email Etiquette

- Computers offer many communication channels, such as email, chat, and social media posts.

- To use these channels correctly, you need to understand how messages should change depending on the context.

- For example, you must understand that writing an email is very different from writing a text message.
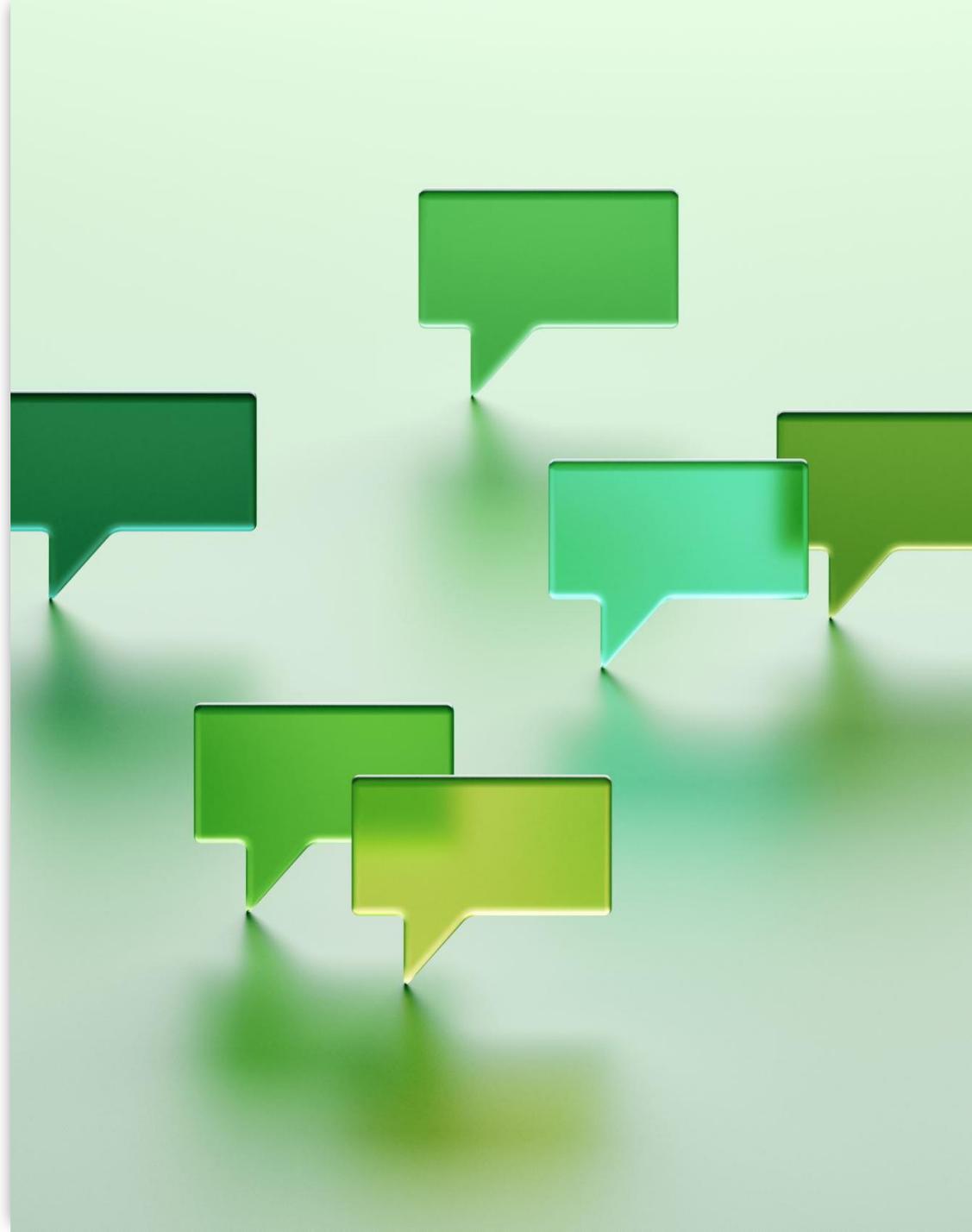
# Using the Internet for Research

- Conducting an effective search with a search engine (e.g., Google, Bing, Yahoo) using advanced search commands

- Evaluating web resources for authority, currency, purpose, and content

- Identifying legitimate resources

- Fact-checking information

- Understanding copyrights, licenses, and plagiarism in a digital environment and how to cite online sources in papers

# Basic Computer Skills: Troubleshooting

- The ability to troubleshoot and fix common computer issues is a must-have for everyone who uses a computer regularly.

- [Quick Tech Fixes for Kids infographic](#).

- It provides solutions for the 16 most common problems reported, such as a non-loading website, a frozen program, and a disappearing toolbar.

- Tape a copy of the infographic to your desk.
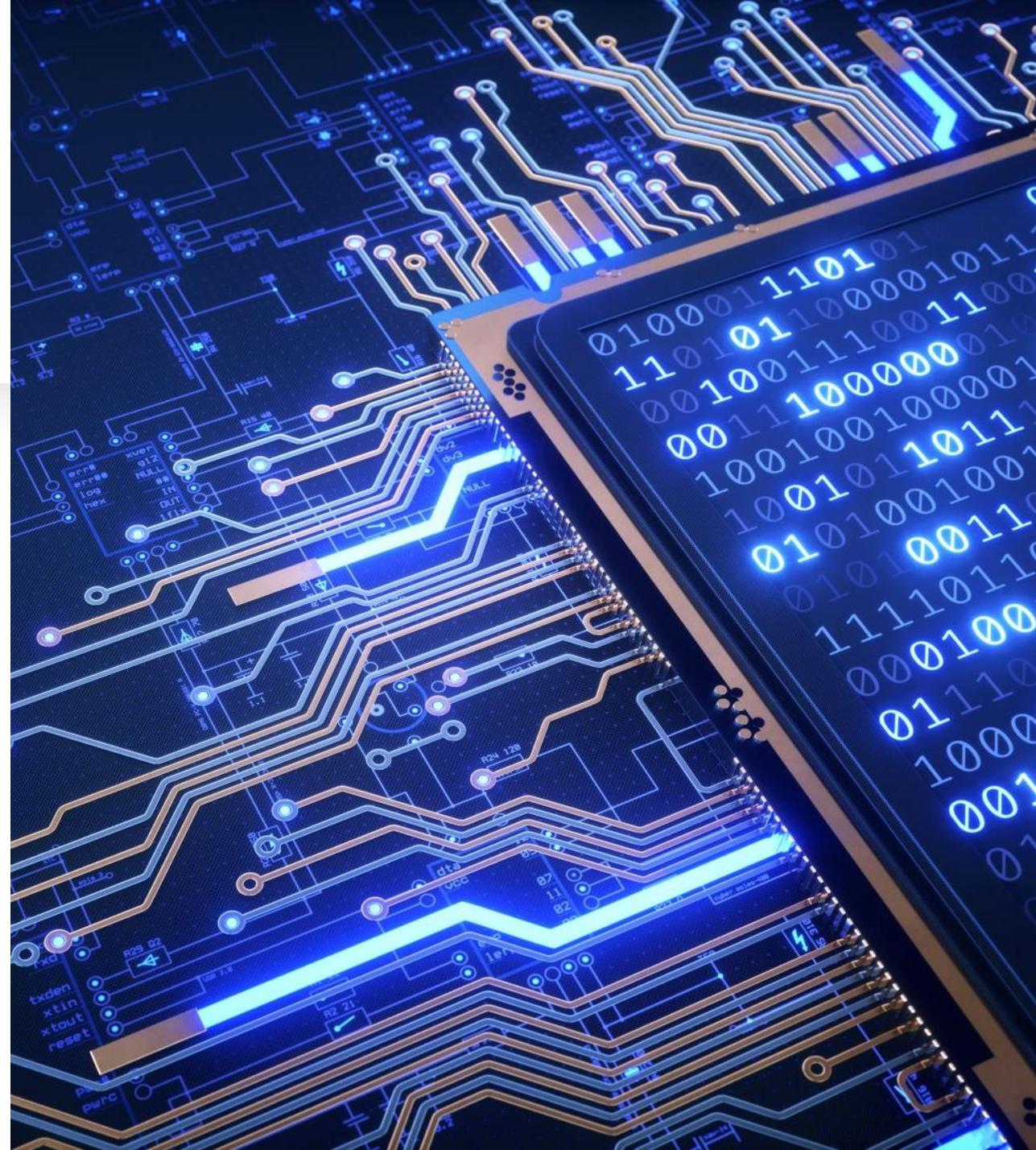
# Digital Safety and Security

- Turn on the "Do Not Track Tool" on your browsers.

- Make strong passwords and never share them.

- Never click on emails or texted links from unfamiliar senders.

- Learn to look closely at emails, texts, landing pages, etc., to spot misspellings, bad grammar, and other [signs of potential phishing](#).

- Keep personal information personal (don't chat/send photos to strangers).

- Ask permission before signing up for anything.

- Know how to recognize ads and don't click on them.

- Respect age limits on all social networking sites.

- Set privacy settings on all social networking sites.

# Internet Basics

- **What is the Internet?**: A global network of computers
- **Web Browsers**: Software to access the internet (e.g., Chrome, Firefox)
- **Basic Internet Functions**:
  - Browsing websites
  - Sending emails
  - Downloading files

# Importance of Cybersecurity

•**Definition**: Protecting computers and data from unauthorized access

•**Common Threats**: Viruses, Phishing, Malware

•**Basic Practices**:

   •Using strong passwords

   •Installing antivirus software

   •Keeping software up to date